

CLAIMS

We claim:

1. A method of treating an obstructed region of tissue within a body, comprising:
 - advancing an elongate device into the body through an opening, the elongate device having a proximal portion and a selectively steerable distal portion, the elongate device having a plurality of segments;
 - selectively steering the distal portion to assume a selected curve along a desired path within the body which avoids contact with tissue; and
 - further advancing the elongate device through the body and towards the region of tissue to be treated while controlling the proximal portion of the device to assume the selected curve of the distal portion.
2. The method of claim 1 further comprising creating the opening into the body via an incision prior to advancing the elongate device.
3. The method of claim 1 wherein advancing the elongate device comprises percutaneously advancing the elongate device into the body.
4. The method of claim 1 wherein advancing the elongate device comprises advancing the elongate device through the opening defined in a cranium.
5. The method of claim 1 wherein advancing the elongate device comprises advancing the elongate device through the opening defined in a thoracic cavity.
6. The method of claim 1 wherein advancing the elongate device comprises advancing the elongate device through the opening defined in a heart.

7. The method of claim 1 wherein advancing the elongate device comprises advancing the elongate device through the opening defined in an intercostal space.

8. The method of claim 1 wherein advancing the elongate device comprises advancing the elongate device through the opening defined in a peritoneal cavity.

9. The method of claim 1 wherein selectively steering comprises manually steering the distal portion to assume the selected curve.

10. The method of claim 1 wherein selectively steering comprises steering the distal portion through a tortuous path.

11. The method of claim 1 wherein controlling the proximal portion comprises automatically controlling the proximal portion.

12. The method of claim 11 wherein automatically controlling comprises controlling the proximal portion via a computer.

13. The method of claim 1 further comprising advancing the elongate device proximally while controlling the proximal portion of the instrument to assume the selected curve of the distal portion.

14. The method of claim 1 further comprising measuring an axial position change of the elongate device via a datum while advancing the elongate device.

15. The method of claim 1 further comprising measuring a rotational or radial position change of the elongate device via a datum while manipulating the elongate device.

16. The method of claim 1 wherein selectively steering comprises selecting the curve which reduces contact with the tissue.

17. The method of claim 1 wherein selectively steering comprises avoiding contact with organ bodies.

18. The method of claim 1 wherein selectively steering comprises avoiding contact with anatomical structures within the body.

19. The method of claim 1 wherein further advancing the elongate device comprises advancing the device through tissue adjacent to the region of tissue to be treated.

20. The method of claim 1 further comprising treating the region of tissue to be treated.

21. The method of claim 19 wherein treating the region of tissue comprises delivering an instrument to the region of tissue through the elongate device.

22. The method of claim 19 wherein treating the region of tissue comprises treating the region via an apparatus integral with the elongate device.

23. The method of claim 1 further comprising withdrawing the elongate device from the region of tissue.

24. A method of treating a region of tissue within a cranial cavity of a body, comprising:

advancing an elongate body into the cranial cavity, the elongate body having a proximal portion and a selectively steerable distal portion , the elongate body having a plurality of segments;

selectively steering the distal portion to assume a selected curve along a desired path within the body which avoids contact with tissue; and

further advancing the elongate body through the cranial cavity and towards the region of tissue to be treated while controlling the proximal portion of the instrument to assume the selected curve of the distal portion.

25. A method of treating a region of tissue within a thoracic cavity of a body, comprising:

advancing an elongate body into the thoracic cavity, the elongate body having a proximal portion and a selectively steerable distal portion , the elongate body having a plurality of segments;

selectively steering the distal portion to assume a selected curve along a desired path within the body which avoids contact with tissue; and

further advancing the elongate body through the thoracic cavity and towards the region of tissue to be treated while controlling the proximal portion of the instrument to assume the selected curve of the distal portion.

26. A method of treating a region of tissue within a peritoneal cavity of a body, comprising:

advancing an elongate body into the peritoneal cavity, the elongate body having a proximal portion and a selectively steerable distal portion , the elongate body having a plurality of segments;

selectively steering the distal portion to assume a selected curve along a desired path within the body which avoids contact with tissue; and

further advancing the elongate body through the peritoneal cavity and towards the region of tissue to be treated while controlling the proximal portion of the instrument to assume the selected curve of the distal portion.